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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,908	08/27/2003	Scott J. Brabec	P0009676.00	4394

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MEDTRONIC, INC.
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EXAMINER

ALTER, ALYSSA MARGO

ART UNIT	PAPER NUMBER
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3762

MAIL DATE	DELIVERY MODE
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11/25/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/648,908	BRABEC ET AL.	
	Examiner	Art Unit	
	Alyssa M. Alter	3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 8-10, 14-25 and 27-36 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 3-5, 8-10, 14-22 and 36 is/are allowed.
- 6) ☒ Claim(s) 23-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Response to Arguments

The Applicant's arguments have been fully considered in regards to claims 23-25 and 27-35 but they are not persuasive. The applicant argues that Mulier et al. does not provide two electrode surfaces on the same electrode. However, as necessitated by this amendment, the examiner has presented new grounds of rejection below. Therefore, claims 23-25 and 27-35 remain rejected under Mulier et al.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 23 does not positively recite an "ionically conductive medium", but merely inferentially includes such a medium. It is unclear if the medium is being positively or functionally recited. Appropriate correction is required.

In addition, claim 23 is incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the cavity or housing for the "ionically conductive medium".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 23-25 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Mulier et al. (US 5,906,613). Mulier et al. discloses a lead with a ring electrode and a helical electrode, as seen in figure 10, which dispenses Ringer's solution, which is a saline solution, or another conductive solution.

As to claim 23, figure 10 depicts a lead with a proximal and distal end, a conductor 524 and an insulating sheath 500. The inside of the helical electrode 502 is considered the conductive structure or first electrode surface. Since the helical electrode dispensed Ringer's solution, the helix electrode is considered to be a closed cavity, in order to transport the fluid to the desired location. The distal end wall is the flat surface of the plastic cap 504 that faces the conductor 524. The plastic cap 504 as seen in figure 8 and 10 creates a closed cavity within the intermediate catheter tube 522. The insulative housing is the plastic cap 504 that circumscribes the second electrode surface, the outer surface of the helical electrode 502, and has a port. Also, since the Ringer's solution is dispensed from the helix, it is in intimate contact with the first electrode surface. In addition, the helix can have an insulated sheath as disclosed by Mulier et al. in col. 6, lines 11-16, thus creating an insulated helical fixation member.

Mulier et al. further discloses in col. 2, lines 12-30, that Ringer's solution can contribute to a wider affected area. Therefore an increase in affected area would reduce the current density since current density equals current flow divided by area (current density= current flow/area or $J = I/A$). As such, the helical electrode produces a lower current density than the ring electrode.

As to claims 25, since the second electrode 520 protrudes from the plastic cap 504 and the plastic cap 504 has the port disposed within the center, the examiner considers the second electrode to protrude from the port.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mulier et al. (US 5,906,613) or in the alternative Mulier et al. (US 5,906,613). Mulier et al. discloses the claimed invention but does not disclose expressly the conduction structure of the first electrode being greater or equal 10 mm^2 . It would have been an obvious matter of design choice to a person of ordinary skill in the art to modify the conduction structure of the first electrode as taught by Mulier et al., with the range of greater or equal 10 mm^2 , because Applicant has not disclosed the range provides an advantage, is used for a particular purpose, or solve a stated problem. One of ordinary

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skill in the art, furthermore, would have expected the Applicant's invention to perform equally well with the conductive structure of the first electrode as taught by Mulier et al., since such a modification to the size of the electrode would be determined on an individual basis to meet specific patient needs.

Therefore, it would have been an obvious matter of design choice to modify conductive structure to obtain the invention as specified in the claim(s).

As to claim 29, Mulier et al. discloses the claimed invention but does not disclose expressly the conductive medium being a hydrogel. It would have been an obvious matter of design choice to a person of ordinary skill in the art to modify saline solution as taught by Mulier et al., with the hydrogel, because Applicant has not disclosed the specific compositions provides an advantage, is used for a particular purpose, or solve a stated problem. One of ordinary skill in the art, furthermore, would have expected the Applicant's invention to perform equally well with the saline solution as taught by Mulier et al., because both mediums are in electrical contact with the electrodes, are disposed within the lead cavity and are capable of providing the predictable results of conducting electrical current.

Therefore, it would have been an obvious matter of design choice to modify conductive medium to obtain the invention as specified in the claim(s).

2. Claims 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mulier et al. (US 5,906,613) or in the alternative Mulier et al. (US 5,906,613) in view of Gates (US 5,408,744). Mulier et al. discloses the claimed invention but does not disclose expressly the electrode surface composition. It would have been an obvious

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matter of design choice to a person of ordinary skill in the art to modify the electrode surface as taught by Mulier et al., with the platinum black particles, iridium-oxide, ruthenium-oxide, titanium-nitride, because Applicant has not disclosed the specific compositions provides an advantage, is used for a particular purpose, or solve a stated problem. One of ordinary skill in the art, furthermore, would have expected the Applicant's invention to perform equally well with the electrode surface as taught by Mulier et al., because both electrodes are compatible with the human body and therefore, capable of being used within an implantable medical device, such as a lead.

Therefore, it would have been an obvious matter of design choice to modify electrode surface composition to obtain the invention as specified in the claim(s).

In the alternative, Mulier et al. discloses the claimed invention except for the electrode surface composition. Gates teaches that it is known to utilize platinum black, titanium, tantalum, iridium oxides and nitrides as set forth in column 7, lines 50-63. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the electrode surface as taught by Mulier et al. with the electrode surface composition as taught by Gates, since it was known in the art that the compositions are all electrically conductive materials used for electrode surfaces and can therefore be altered to meet specific patient needs. In addition, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416 (See MPEP 2144.07)

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3. Claims 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mulier et al. (US 5,906,613) in view of Altman et al. (US 6,086,582). Mulier et al. discloses the claimed invention except for the steroid-loaded monolithic controlled release device (MCRD). Altman et al. teaches that it is known to dispense steroid-based drugs slowly through a lead, as disclosed in col. 3, lines 33-37. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the dispensed fluid as taught by Mulier et al. with the drug delivery means as taught by Altman et al, in order to provide the predictable results of modifying the treatment based on specific patients need and to facilitate localized drug delivery.

Allowable Subject Matter

1. Claims 1, 3-5, 7-10, 14-15, 17-22 and 36 are allowed.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alyssa M. Alter whose telephone number is (571)272-4939. The examiner can normally be reached on M-F 8am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George R Evanisko/
Primary Examiner, Art Unit 3762

/Alyssa M Alter/
Examiner
Art Unit 3762